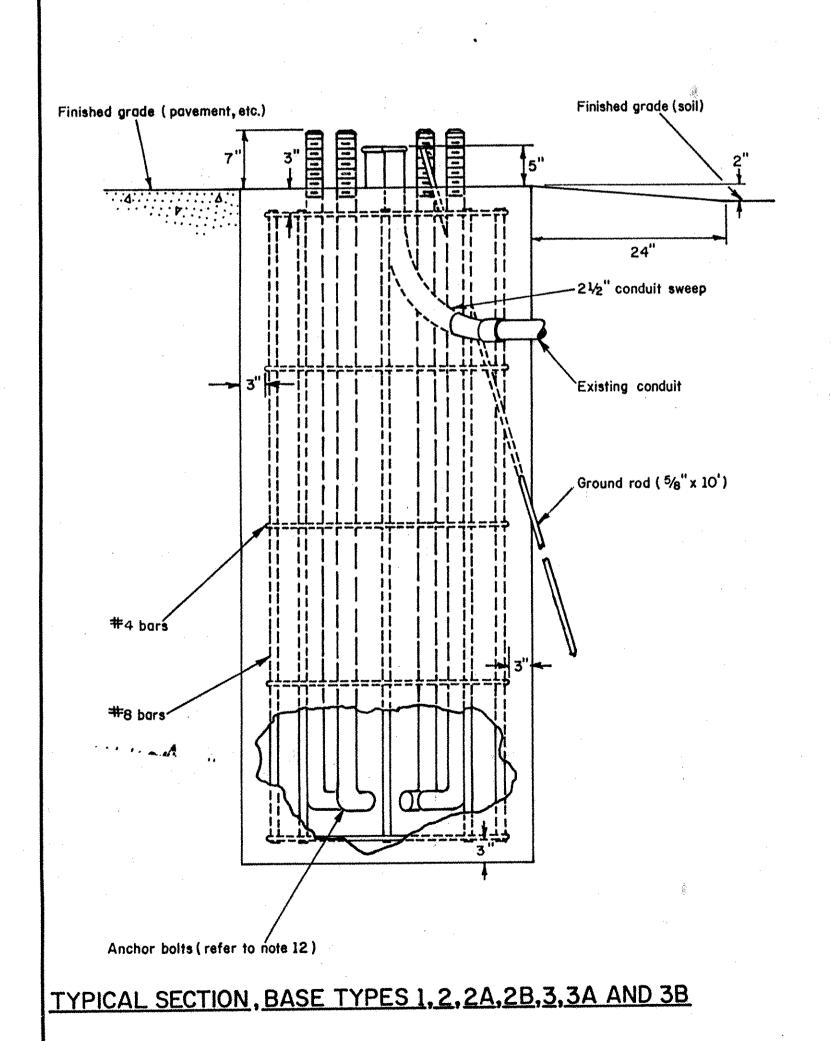
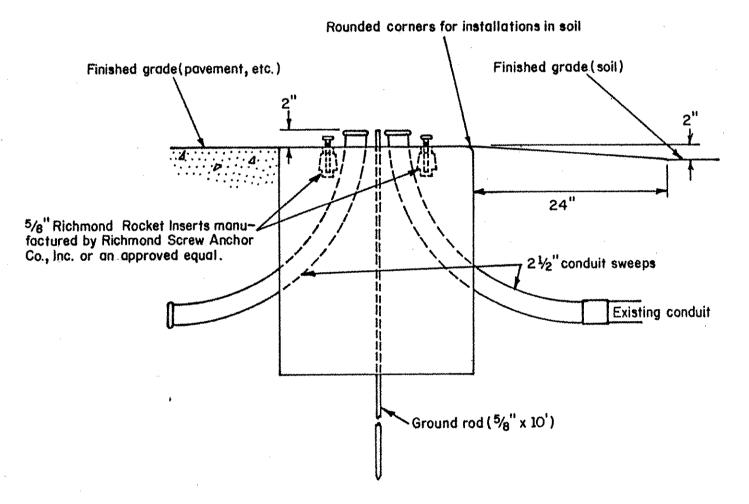


TYPICAL INSTALLATION OF STEEL POLE ON POLE BASES

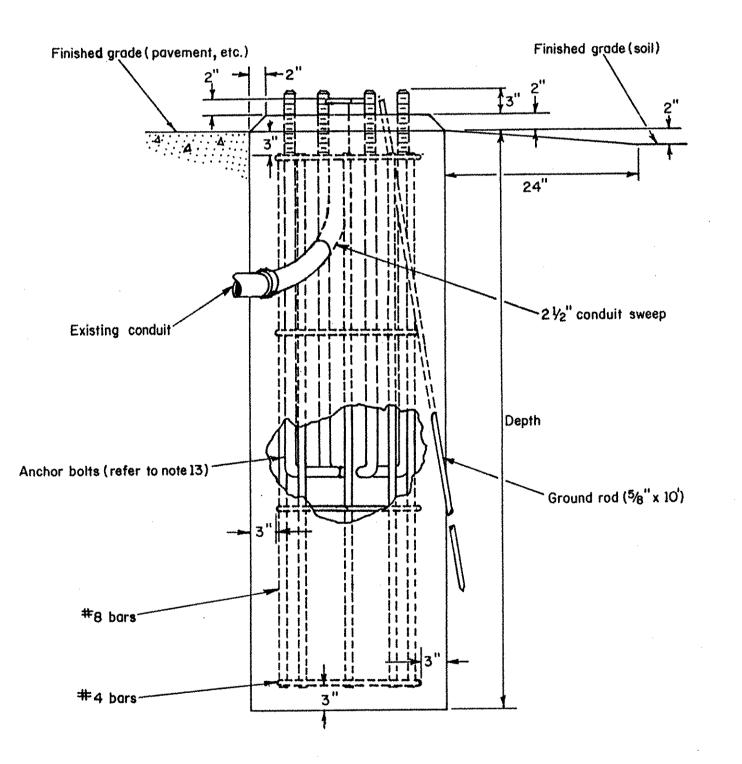




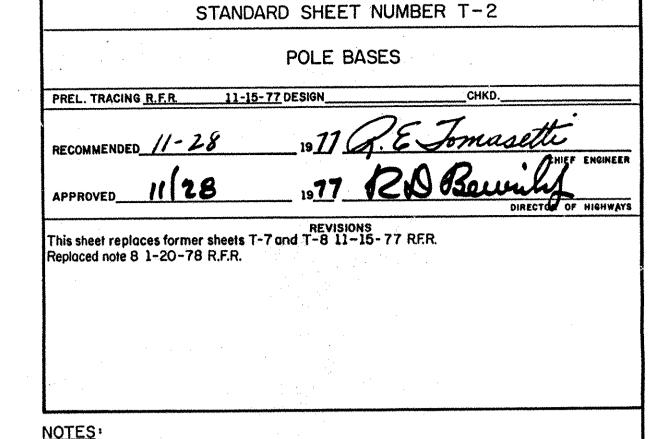
BASE TYPE 4 SECTION

Pole Base Type	Diameter	Depth	#4 Horizontal	#8 Vertical	
			Reinforcing Tie Bars	Reinforcing Bars	
1	3'	7'	5	8	
2	3'	10'	6	8	
2A	4'	8'	5	8	
, 2B	5'	7'	-5	8	
3	4'	10'	6	8	
3A	5'	9'	6	8	
3B	6'	7'	. 5	. 8	
4	2'	2'-4"	none	none	
5	3'	4'	none	none	
6	2'	6'	4	8	

POLE BASE DATA CHART

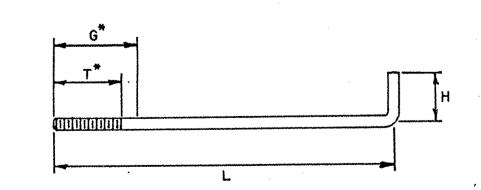


TYPICAL SECTION, BASES TYPE 5 AND TYPE 6



STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

- 1. When pole bases (except type 5 and type 6) are placed in sidewalk areas they will be constructed flush with the sidewalk. Type 5 and type 6 will be constructed with their top surface 2"above the sidewalk. At other locations the bases will be set as shown but, never below the adjacent pavement.
- 2. Concrete will conform to special provisions section 812, PORTLAND CEMENT CONCRETE, with a 28 day strength of 3000 psi...
- Where conduit has previously been installed, the connection to the conduit in the base will be made before pouring concrete.
- 4. All bases will contain two $2\frac{1}{2}$ conduit sweeps which shall be included in the cost of the base. All bases may contain more than two conduit sweeps. All conduit sweeps over two shall be paid for as conduit under new pavement. Any sweep not used will be capped in the ground. An arrow shall be placed in the surface indicating where all conduits leave the base.
- 5. Use a 90° elbow with a 24"radius for conduit sweeps. Elbows manufactured by the contractor with a hydraulic bender may be acceptable provided that a smooth radius of proper dimension is achieved and that the galvanizing is not damaged.
- 6. All conduits installed within a pole base will have insulated bushings on ends above the surface of the base.
- 7. Typically round pole bases shall be used. The contractor may, at his discretion, use a square base but, at no additional cost to the department. If a square base is used. the side of the square will be the same dimension as the diameter of the type pole base
- 8. In stable soil, forms below 12" from the surface are not required. All bases shall be edged and have a broom finish.
- 9. Copper coated ground rods ($\frac{5}{8}$ x 10 min.) shall be placed within all bases as shown or as directed by the engineer with a 6'-0" minimum of the rod in undisturbed earth. The top of the ground rod shall be within a 4"radius of the center and 2" from all conduit.
- 10. Reinforcing bars shall conform to A.S.T.M. A615, grade 60. Where horizontal bars and vertical bars intersect, they will be wired together, no welding will be accepted.
- 11. Information about templates for setting anchor bolts will be furnished by the department.
- 12. Anchor bolts for pole base types 1,2,2A,2B,3,3A and 3B will be furnished by the
- 13. The anchor system for pole base types 4,5 and 6 will be supplied by the contractor and included in the cost of the base. A type 4 base requires four 5/8 Richmond Rocket Inserts or an approved equal and four 5/8"x 11/2" hex. head bolts. A type 5 base requires four 1"x 40" anchor bolts with nuts (refer to chart). A type 6 base requires four 1"x 40" or four 11/4"x 48" anchor bolts with nuts (refer to chart) as directed by the engineer. The anchor bolts for type 5 and 6 bases will have a minimum yielding stress of 55,000 psi...
- 14. Anchor bolts, nuts and hex. bolts will be hot dipped galvanized in accordance with the latest A.S.T.M. specifications.



* G = Galvanized portion; T = Thread length

Nominal Bolt Size	L	Н	т	G
1" x 40"	36"	4"	6"	8"
11/4" x 48"	42"	6"	8"	10"

ANCHOR BOLT DATA CHART AND <u>DETAILS</u>